

PCB ANALYSIS DATA PACKAGE
ARDL REPORT NO. 9882
CORPS OF ENGINEERS - PORTLAND DISTRICT
ANNETTE ISLAND SITE

VOLUME 1

ARDL Inc.

applied research & development laboratory

CHEMISTRY • BIOLOGY • PHYSIOLOGY
ENGINEERING • ENVIRONMENTAL ANALYSIS

ORGANIC ANALYSIS DATA PACKAGE

Corps of Engineers-Portland District Date: 9/22/94
Contract No. DACW 57-94-D-0015

Lab Name: ARDL, Inc.

ARDL Report No.: 9882 Samples Received at ARDL: 9/16/94

Project Name: Annette Island

CASE NARRATIVE

PCB FRACTION - METHOD 8080

Eleven (11) wipe samples were received by ARDL, Inc. on September 16, 1994, for PCB analysis. The samples were extracted and concentrated per SW-846.

All samples (except COE Sample ANN94WPOO111) were identified as containing Aroclor 1260, with COE Samples ANN94WPOO109 and ANN94WPOO110 identified as containing Aroclor 1254 also. The quantitation of these latter samples was complicated by the fact that some peaks in both the patterns of 1260 and 1254 were similar. In order to quantitate these samples, the area of the peaks which were the same for both Aroclors was summed and divided by two. This resulting area was used in the quantitation of both Aroclors. The remaining peaks of each pattern along with the one-half summed similar peaks area was added together for quantitation purposes and calculated appropriately.

All samples identified as containing Aroclor compounds required a dilution due to the excessive concentration present.

Due to a limited sample supplied, a matrix spike and matrix spike duplicate sample set was not extracted. However, a spike blank and duplicate were extracted and analyzed with the results reported herein.

No additional problems were encountered in the analyses of these samples.

ORGANIC DATA REPORTING QUALIFIERS

The following organic data reporting qualifiers are used as required.

U - Indicates compound was analyzed for but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture.

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CASE NARRATIVE(Continued)

ORGANIC DATA REPORTING QUALIFIERS (Continued)

- J - Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1: 1 response is assumed, or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
- N - Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the N code is not used.
- P - This flag is used for a pesticide /Aroclor target analyte when- there is greater than 25% difference for detected concentrations between the two GC columns (see Form X). The lower **of the two** values is reported on Form I and flagged with a "P".
- C - This flag applies to pesticide results where the identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, do not apply this flag, instead use a laboratorydefined flag.
- B - This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. This flag must be used for a TIC as well as for a positively identified target compound.

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ORGANIC DATA REPORTING QUALIFIERS (Continued)

- E This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. If one or more compounds have a response greater than full scale, except as noted in Exhibit D, the sample or extract must be diluted and re-analyzed according to the specifications in Exhibit D. All such compounds with a response greater than full scale should have the concentration flagged with an "E" on the Form 1 for the original analysis. If the dilution of the extract causes any compounds identified in the first analysis to be below the calibration range in the second analysis, then the results of both analyses shall be reported on separate copies of Form 1. The Form 1 for the diluted sample shall have the "DL" suffix appended to the sample number.
- D - This flag identifies all compounds identified in an analysis at a secondary dilution factor. If a sample or extract is re-analyzed at a higher dilution factor, as in the "E" flag above, the "DL" suffix is appended to the sample number on the Form 1 for the diluted sample, and all concentration values reported on that Form 1 are flagged with the "D" flag.
- A - This flag indicates that a TIC is a suspected aldol-condensation product.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized for the Laboratory Manager or his designee, as verified by the following signature.


Daniel J. Giespie
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